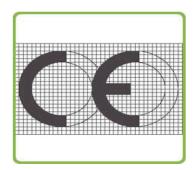


VACOOK TM 15

Thermocirculator for "Sous Vide" cooking



USER AND MAINTENANCE MANUAL



This manual has been prepared to provide the customer all the information of the machine and the rules applied to it, as well as the operating and maintenance that allow you to make best use of the device, while keeping its efficiency over time. This manual should be given to people in charge of use the machine and of its periodical maintenance.

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1.1 - GENERAL PRECAUTIONS

- VACOOK ™ is designed for home use or similar fields of application. This product complies with the latest standards of safety. Before you start using VACOOK ™ is however advisable to carefully read these instructions and take note of the following recommendations. Keep this instruction manual for any future use: it is part of the device. For this reason, it is appropriate to always provide it when VACOOK ™ is used by a new user. In case of a change of personnel, it should be provided in advance.
- VACOOK ™ must only ever be used by a trained operator who has read and understood the safety instructions in this manual.
- Do not touch the heating elements with bare hands.
- Do not touch the rotating fans while they are working.
- Always unplug the machine before cleaning or maintenance.
- Disconnect the plug from the socket after each use or if the unit is not used for an extended period
- Do not leave VACOOK ™ immersed in hot water after use. Vapors may create condensation inside the unit.
- Always take the residual risks into account when servicing or cleaning the machine (and therefore when removing the protective devices).
- Always focus on the work in hand when executing maintenance or cleaning.
- Pay attention not to change the resistance positioning with respect to the probe.
- Check the condition of the power cable on a regular basis; a worn or damaged cable can pose serious electrical risks.
- If there are any signs the machine is not working properly or you have reason to believe it is malfunctioning, you are advised to not use it and to contact the Assistance Centre immediately.
- Do not execute any repairs directly. Always contact an authorized repairman.
- The user must never, for any reason, tamper with the machine. Always contact the Manufacturer in the event of a fault. Any attempt by the user or unauthorized operator to dismantle, change or tamper with a component of the machine shall forfeit the **Declaration of Conformity** drawn up in accordance with EEC Directive 2006/42 and invalidate the warranty. The Manufacturer Firm cannot assume liability for damage due to tampering.
- Moreover, the Manufacturer cannot be held liable for:
 - Improper use or tampering with the machine by poorly trained operators;
 - Poor or insufficient maintenance;
 - Use of spare parts that are **not original** or type-approved;
 - Failure to comply with some or all of the instructions in this manual;
 - Treatment of the machine's surfaces with unsuitable products.
 - The formation of scale due to the use of non-distilled water.

This device is not suitable to be used by people (children included) with reduced physical or mental capabilities or with lack of experience and knowledge, otherwise they must be instructed by someone for their safety. Children must not play with this device. Cleaning and maintenance must not be done by children without supervision.

Never immerse the unit completely into the water. Clean with a damp cloth. Do not let penetrate in the body of the machine nor water, or dirt, or residues including food liquid or solid scraps.

1.2 - MACHINE SAFETY DEVICES

The electrical and mechanical safety devices conform to directives **2006/95** and **2006/42**, and standard **60335-1**.

The VACOOK ™ protects against electrical and mechanical risks during operation as well as cleaning and maintenance.



There are however some **RESIDUAL RISKS** that cannot be fully eliminated.

These are headed <u>ATTENTION</u> and concern the risk of burns or bruises when loading and unloading the product and cleaning the machine.

1.3 - DESCRIPTION OF THE MACHINE

1.3.1 - Overview

Our firm designed and constructed the VACOOK ™ to guarantee the following:

- the sturdiness and stability of all the components;
- easy handling, thanks to a metallic handle it can be carried with convenience;
- high precision heating control;
- a circulation fan for excellent mixing of the product;

The models stated in this manual are constructed in conformity with **EEC Directive 2006/42** and subsequent amendments.

The manufacturer cannot assume any liability for accidents if the machine has been changed, tampered with, used without its safety devices or put to a use for which it was not intended.

1.3.2 - Structural characteristics

The VACOOK ™ was made entirely of AISI 304 stainless steel to ensure hygiene and resistance to acids and salts, as well as excellent resistance to oxidization.

- The heating element consists of a electro-polished coated spiral element devised especially for immersion in water.
- An plastic handle at low heat conduction for convenient handling of the machine.
- A motor circuit breaker and resistance controller in case of overvoltage and overheating.

1.4 - INTENDED USE

The VACOOK ™ is intended for vacuum cooking in a water-filled immersion tank. The tank must be suitable for sous vide cooking, clean, duly insulated and covered. The manufacturer suggests the use of polypropylene spheres to reduce the water evaporation and the heat dispersion. The device does not cook food in any other way or heat liquids other than distilled water.

1.5 - UNINTENDED USE

The machine must be put to the sole use intended by the manufacturer; in particular:

- **Do not** use the machine unless it has been installed correctly and all the protective devices are in good condition and properly fitted, in order to prevent the risk of serious harm to yourself.
- Do not touch the electrical components without having first unplugged the machine: risk of electrocution.
- **Do not** start up the machine when this is not working properly.
- Before using the machine, make sure the machine is perfectly safe and that any dangerous conditions have been eliminated in an appropriate manner. If there are any irregularities, stop the machine and request the assistance of a maintenance technician.
- **Do not** allow unauthorized operators to use the machine.
- **Do not** use the machine by connecting it to systems without grounding and without circuit breaker (commonly called "life-saving").
- Do not overturn the machine when connected to the mains.

Emergency action in the event of electrical accidents: firstly remove the victim from the conductor (as he is likely to be unconscious). This operation is dangerous.

The victim in this case is a conductor: touching him is to risk electrocution.

It is advisable therefore to disconnect the contacts directly from the line supply valve, or if this is not possible, move the victim away using insulation materials (pieces of wood or PVC, cloth, leather, etc.).

The victim should be given immediate medical attention and taken to a hospital.

1.6 - MASTER DATA

Please state the machine's exact "Model", "Serial number" and "Year of manufacture" when contacting our assistance service. This will help us give you a quick and efficient response.

We will ask you to state the machine model and serial number whenever you contact us, so make sure to check these data placed on the plate set on the back of the device.

It is forbidden to remove the CE MARKING plate and/or replace it with a different one. Should the CE MARKING plate be accidentally damage, detached from the machine or the manufacturer's seal removed, the customer must compulsorily and immediately inform the manufacturing company.

1.7 - PROTECTIVE AND SAFETY DEVICES



ATTENTION!

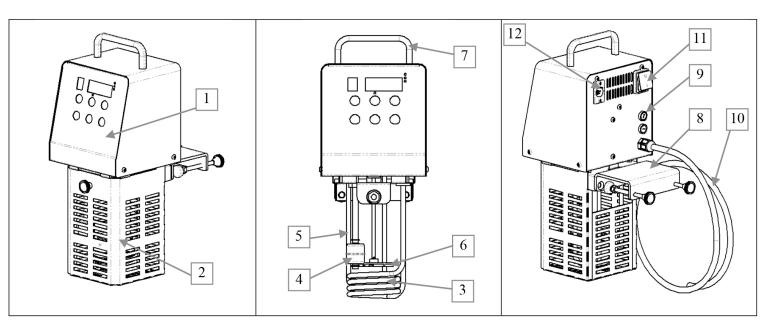
- Make sure the safety devices are in good condition and correctly installed before using the machine.
 Check these before each work shift to ensure they are fitted and in order. If they are not, you should inform the person responsible for maintenance.
- Risk of burns caused by splashing water or by contact with heating parts. When you are cooking food at a temperatures higher than 60 °C (140 °F) do not touch the tank and avoid any contact with the metal parts of the device that may conduct heat.
- Risk of burns caused by vapor or condensation of liquid. Keep in mind that the steam can escape from the sides and the front of the VACOOK ™ during cooking. Keep VACOOK ™ out of the reach of children, in particular when you are using cooking temperatures higher than 60 ° C (140 ° F) and warn them of the dangers of steam and hot condense, which can leak from the tank.
 - A. **Element protective cell**: this prevents contact with the element and fan which can seriously wound the operator.
 - B. Automatic protective device in the case of dry operation: the machine stops and an error message ("H2O") appears on the screen when the level of the water falls below the minimum permitted (75 mm from the top of the immersion tank).
 - C. **Block device:** the machine block itself when the temperature sensor detects a temperature higher than 105 ° C (221 ° F) and the display shows an error message ("S" over temperature).
 - D. **Alarm device:** when the probe detects a temperature in the abrupt decrease up to 3.5 ° C (6.3 ° F) in 5 seconds, or an abrupt increase of 0.8 ° C (1.4 ° F) in 5 seconds, the following error message will be shown on the display: "G" (gradient).
 - E. **Fixing clamp**: It must always be firmly secured to the machine body. If loosen, it may jeopardize the positioning of the machine and thus cause a fall in the water.

1.8 - RISK OF DAMAGE



- From steam: make sure there is enough free space above VACOOK ™ (safety distance from wall cabinets, shelves) and around it, to prevent any damage caused by the hot steam.
- From heat sources: do not place VACOOK ™ near heat sources such as radiators, ovens, hot plates, stoves, etc. Do not place VACOOK ™ or its connecting cable on any heat source (ie. hot plates, stove or oven) that switched on by mistake could damage the machine. Do not use VACOOK ™ in environments where the temperature is lower than 15 °C (59 °F) or higher than 40 °C (104 °F).
- From the leak of food: before inserting any bag with food make sure they are completely sealed, otherwise the foods will leak out and will irreparably damage VACOOK $^{\text{TM}}$.
- From wrong use: use VACOOK ™ only with alternating current and a power outlet properly installed by a technician. The voltage and frequency must match those on the rating plate (see rear part of the unit).

1.9- MACHINE COMPOSITION



LEGEN	ND .		
1	Front	7	Handle
2	Protective cell	8	Clamp
3	Element	9	Fuses
4	Float	10	Cable
5	Probe	11	ON-OFF switch
6	Rotor	12	Core Probe connector

1.10 - MATERIALS' FEATURES

VACOOK™ is completely made of stainless steel AISI 304 with a Scotch Brite satin finish. The handle is made of 6 polyamide with 30% of glass fibers, while the knurled knobs are made of POM acetalic resin with Food conformity declaration.

The float and the probe are made of stainless steel AISI 316, while the resistance is made of different materials such as Inconel 800 (Nickel-Chrome alloy) and stainless steel AISI 304. A thermoformed adhesive for the polycarbonate lexan button control panel is stick on the front.

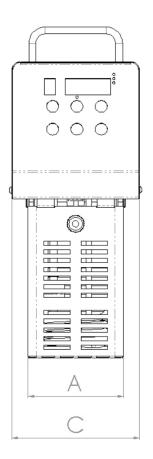


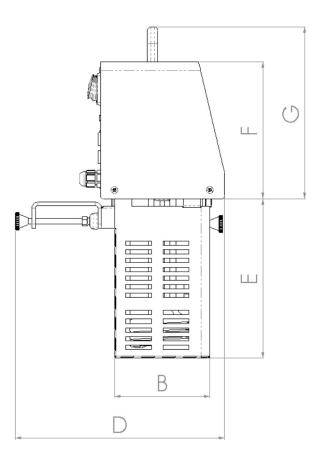
Pay attention to the residual risks arising from the cutting and/or sharp parts during any handling, removing or cleaning operation of the device

PART 2 - TECHNICAL DATA

2.1 – SIZE, WEIGHT, PROPERTIES

Fig.n°2 – Dimensions and max size of the machine





Model	Measure	"EC" cert. VACOOK ™	"UL" cert. VACOOK ™
Max power consumption	watt	2.050	1.550
Max resistance consumption	watt	2.000	1.500
Supply	Volt / Herz	230V / 50Hz	120V / 60Hz
Temperature	°C/°F	0.1 –95 / 32.1 – 203	0 – 95 / 32 – 203
Cooking Time	hr.min.	00.00 - 72.00	00.00 – 72.00
Delayed start	Hr	0 – 24	0 – 24
AxB	mm	110 x 110	110 x 110
C x D	mm	152 x 241	152 x 241
E / F / G	mm	186 / 158 / 194	186 / 158 / 194
Net weight	kg	3,9	3,9



THE ELECTRICAL PROPERTIES OF THE MACHINE ARE STATED ON A PLATE ON ITS BACK; BEFORE CONNECTING THE MACHINE, REFER TO THE SECTION: "INSTALLATION" (part 4)

PART 3 - RECEIPT OF THE MACHINE

3.1 - DELIVERY OF THE MACHINE

The machinery is carefully packed before it leaves our warehouses.

The pack contains:

- A sturdy cardboard box with inside padding;
- The machine.
- The core probe (option)
- The clamp assembling kit (if not already assembled)
- This manual.

3.2 - CHECKING THE PACK UPON RECEIPT

When you receive the pack containing the machine, check the packaging carefully for any signs of damage it may have sustained during transport.

If the outer packaging looks as if it has been treated roughly, knocked or dropped, within three days of the date of delivery, as stated in the documents, and write a precise report on any evident damages the machine has sustained.

3.3 - DISPOSAL OF THE PACKAGING

All the packaging (cardboard, plastic support and polyurethane foam) is classified as solid urban waste; it can be disposed of without difficulty.

If the machine is installed in a country where there are specific regulations, you should dispose of the packaging in accordance with those regulations in force.

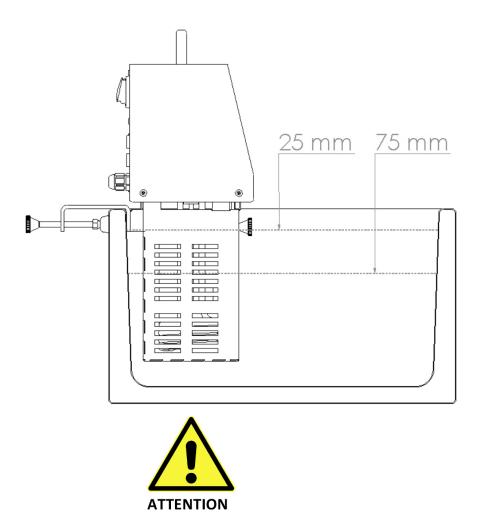
PART 4 - INSTALLATION

4.1 - POSITIONING OF THE MACHINE

Fasten the VACOOK [™] to the immersion tank using the fixing clamp behind the machine.

Fill the tank with distilled water. Make sure you put in more than the **minimum amount** required for machine operation (75 mm from the top of the tank) but do not exceed the **maximum level (25 mm from the top of the tank)**.

Make sure the liquid does not enter the machine.



The use of non-distilled water for cooking voids the warranty and relieves the Manufacturer from any damages caused by such misuse.

4.2 - CONNECTION TO THE MAINS

Check the data on the technical – serial number plate is the same as that stated in the delivery and accompanying documents. Make sure also that the switch and socket are easy to access when the appliance is in use

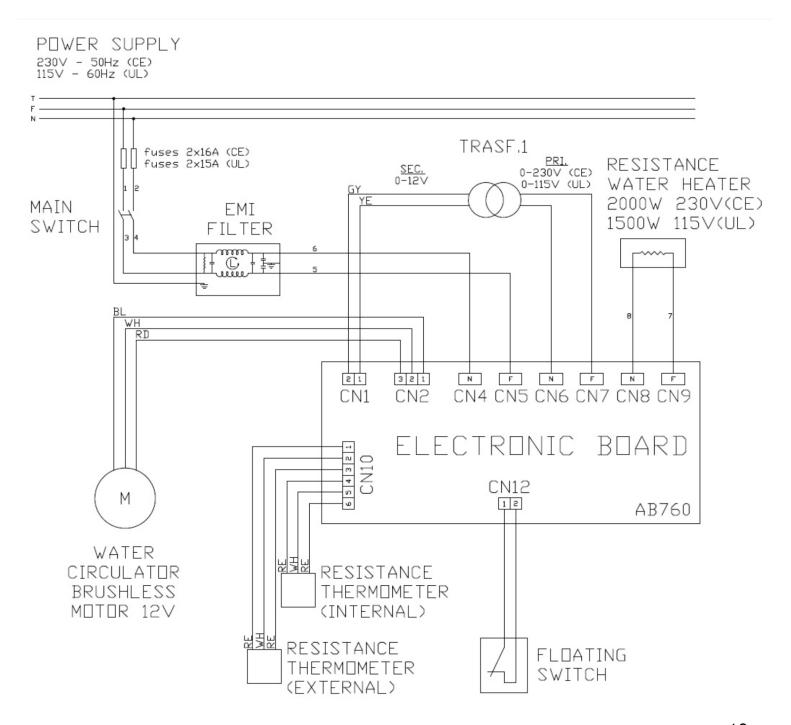
4.2.1 - EC Version

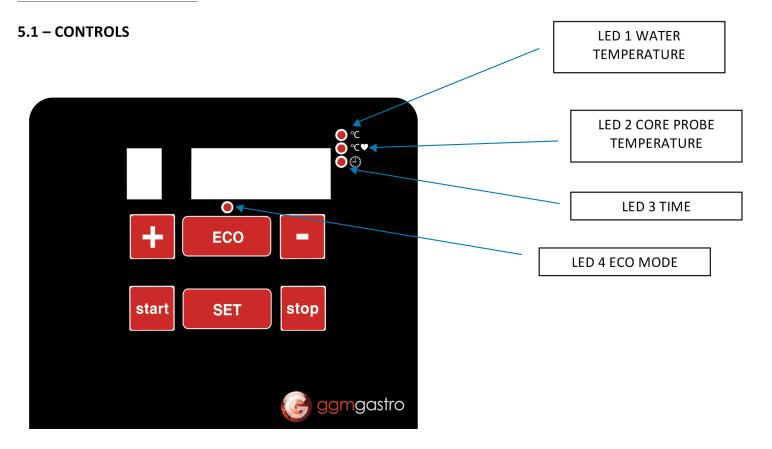
A 3x1,15 mm² power cable 2.5 m in length and EC (SCHUKO) plug is provided with the appliance. Connect the machine to a 230 Volt 50 Hz power supply.

4.2.2 - UL Version

A 3x14AWG power cable 1.8 m in length and NEMA 5-20P plug is provided with the appliance. Connect the machine to a 120 Volt 60 Hz power supply.

4.3 - WIRING DIAGRAM





Display: a 7 segments display, 1+4 digit:



Led 1 Water Temperature: it lights up when the display shows the water temperature during the working cycle

Led 2 Core Probe Temperature: it lights up when the display shows the core probe temperature during the working cycle (when the option is set in the program)

Led 3 Time: it lights up when the display shows the remaining time during the working cycle.

Led 4 ECO mode: it lights up when the ECO mode is activated.

ECO button: press this button to shift the working cycle into save-energy mode (it reduces the power consumption by 50% by increasing the cycles working time).

+/- buttons: use these buttons to set the parameters of the machine or to scroll the programs list.

START button: press this button to start the working cycle and to pause the machine.

SET button: press this button to scroll the machine parameters.

STOP button: press this button to end the working cycle.

5.2 - MACHINE PROGRAMMING

Turn on the machine by setting the switch on the back of the machine in position "1".

The display shows the software version for a few seconds: you can access the menu system by pressing the SET button in this moment.

I.e. software version #12 shown:



If you do not press any button, the machine enters automatically the cooking programs menu - it means the menu you normally access to use the machine - and it shows the last program you used.

5.2.1 – System parameters menu

You can access the menu system to set the following parameters: OFFSET and TEMPERATURE SCALE. Press SET button to scroll the parameters. Press +/- buttons to scroll the values. Press STOP button to exit the menu system parameters; you will enter automatically the cooking programs menu.

OFFSET:



The Offset is the value that could be set from -3.0 to +3.0 °C or from -5.4 to +5.4 °F that will be added or deducted to the real temperature value, which is detected by the thermostat.

TEMPERATURE SCALE:



The Temperature Scale let you choose between Celsius scale (C) or Fahrenheit scale (F).

5.2.2 - Cooking programs menu

You access this menu for the normal use of the machine. You can select the different temperature and time parameters by entering the cooking programs.

Program number:



The number on the left shows the program number in use (from 0 to 9). The number on the right shows the water temperature (LED °C on). Press +/- buttons to scroll the programs list. Press SET button to display and modify the program parameters.

Temperature:



Press +/- buttons to select the cooking temperature from 0.1 to 95.0°C (from 32.1 to 203 °F). Press SET once you select the desired value

Time:



Use the +/- buttons to select a value from 00.00 to 72.00 (hh.mm). Once you select the desired value, press SET.

Delayed Start:



Use the +/- buttons to select a value from 0 to 24 (hh). Once you select the desired value then press SET.

Delta temperature:



This parameter let the user select the maximum temperature difference allowed between the water temperature and the probe temperature. You can select a value from 0 to 20°C or from 0 to 36°F. If you select 0 the control of the probe is deactivated and the machine can work even without the probe. In any case, you can connect and use it and its temperature will be shown on the DISPLAY B during the working cycle. If you select a value from 1 to 20 you always have to connect the probe when you start a working cycle; in this case the functioning of the machine will be based on the probe temperature. Once you select the desired value, then press SET.

5.2.3 - Cooking process



The machine must be fasten to the tank before connecting the machine to the power supply (see chapter 4.1). DO NOT CONNECT THE MACHINE TO THE POWER SUPPLY when the machine get wet. In this case, call the customer service.

Press START to start the chosen program once its parameters have been set. It appears a dot (.) on the left of the display and the rotor starts to circulate the water.

The VACOOK ™ keeps on heating at its maximum power (or at its 50% when the ECO mode is activated) until it reaches the set program's temperature.

As the water (or the core of the products - in case you are using the core probe) reaches the selected temperature, the VACOOK $^{\text{TM}}$ emits a sound signal and the time starts to decrease.

The following three values are shown on the display in rotation during all phases of heating and cooking:

- 1. Water temperature (LED 1)
- 2. Remaining time (LED 3)
- 3. Core probe temperature (when in use) (LED 2)

You can pause the machine both during the heating phase and during the cooking phase by pressing START button. The rotor and the element are disabled and the timer stops itself. Press START to restart the working cycle or press STOP to stop the program and put the machine on standby. The machine will

automatically put itself on standby after a 10 minutes pause.

SET button is deactivated during the pause.

The machine will emit an acoustic signal once the cooking will be finished; it will turn into standby, the element will turn off and the rotor will stop itself.

WARNING

For safety reasons, VACOOK ™ continuously analyzes the speed of heating and cooling of the water in the tank once the program starts.

The program must be paused by pressing START button whenever you interfere with the water temperature (i.e. by adding water of a different temperature or by the immersion of cool material into the tank) in order to avoid any error messages.

- If the temperature detected by the thermo-resistance reaches a difference of 0.8 °C (1.4 °F) due to an over heating during a period of 5 seconds, a GRADIENT ERROR could be displayed. (see 5.2.4 Error messages)
- If the temperature detected by the thermos-resistance reaches a difference of 3.5 °C (6.3 °F) due to a cooling during a period of 5 seconds, a GRADIENT ERROR could be displayed. (see 5.2.4 Error messages)

5.2.4 – Error messages

DISPLAY	ERROR
H 2 O	The water level is too low. The machine pauses automatically. Add water into the tank to let the machine re-start by itself. The elapsed time from the cooking block will be shown on the display (hh:mm) up to a maximum of 8 hours. After 8 hours the machine will reset itself.
E r r	<u>Unconnected core probe</u> . Connect the core probe and set start or set 0 as delta value. If the problem persists please contact your service provider.
s E r r	Over heating error. When the probe detects a temperature higher than 105 °C (221°F) the machine stops. Unplug the device. Check the proper functioning of each part. If the problem persists please contact your service provider.
G E r r	Gradient error. The safety system intervenes if the temperature decreases abruptly (in 5 seconds) of 3.5 °C (6.3 °F) or rises sharply (in 5 seconds) of 0.8 °C (1.4 °F). Wait a few seconds. When the water temperature will be normalized press START and the cycle will start again from where it left off. If the problem persists please contact your service provider.

AVVISO

If you use a small tank and the water quantity is lower than 10 litres, G error could appear in the display, due to a too quick overheating.

Wait at least 2 minutes before starting any cycle to let the machine heat or cold itself at the same temperature of the water. Otherwise G error could appear on the display

5.3 - TURNING OFF

Press STOP button to turn off the VACOOK ™. Then you can set the switch on the back of the machine in position "0" (zero).



Unplug the device and move it from the tank by unscrewing the clamp and holding it by handle balance at the end of each cooking cycle. Stock VACOOK ™ in a safe place, away from heat sources or moisture. Make sure that nobody can get in contact with any of the hot part of the device. Although the machine is equipped with security system, VACOOK ™ is a device that heats water and food up to 95°C (203 °F). The physical effects due to the cooking process are exactly the same you will have by using pots and pans. Therefore we advise you to be careful and use the machine accordingly.

PART 6 - CLEANING THE MACHINE



Always unplug the machine before cleaning it to ensure it is no longer live.

6.1 - GENERAL POINT

- Clean the machine with a cloth in a normal detergent at ambient temperature.
- Do not use high-pressure water jet machine or pressurized water spray.
- Do not use tools, brushes or other that could damage the surface of the machine.
- Do not put any of the components in the dishwasher.

6.2 – MAINTENANCE OF THE ELEMENT

To protect the element, the float and all the components that are immersed in the tank from the limestone, you are advised to add some vinegar in the tank (1:100) with the water for each working cycle.

PART 7 - MAINTENANCE

7.1 - GENERAL POINT

Always unplug the machine before servicing it to ensure it is no longer live.

7.2 - POWER CABLE

Check the cable regularly to ensure it is in good condition. Call the ASSISTANCE CENTRE if the cable needs to be replaced.

PART 8 - DISMANTLING

8.1 - PUTTING OUT OF SERVICE

Should you decide to put the machine out of service, make sure it cannot be used by anyone: unplug the machine and cut the alimentation cable.

8.2 - DISPOSAL

Once the machine has been put out of service, it can be eliminated in due course. To dispose the machine correctly, contact a waste disposal firm taking into account the various materials contained into the different components of the machine.

8.3 - WEEE WASTE ELECTRICAL AND ELECTRONIC EQUIPMENT

In conformity with article 13 of Legislative Decree no. 151 of 25 July 2005, "Implementation of the Directives 2002/95/EC, 2002/96/EC and 2003/108/EC concerning the reduction of the use of hazardous substances in electrical and electronic equipment, and the disposal of waste"







The symbol of the crossed out wheelie bin on the equipment or packaging indicates the product must be disposed of separately from other waste at the end of its useful life. The segregated collection of this equipment at the end of its useful life is organized and arranged by the producer. The user wishing to dispose of the equipment concerned must therefore contact the producer and follow the manufacturer's instructions regarding the segregated collection of the equipment at the end of its useful life.

Suitable segregated collection of the equipment for subsequent recycling, treatment or environmentally friendly disposal helps prevent damage to the environment and to human health, and encourages the re-use and/or recycling of the materials that make up the equipment.

Abusive disposal of the product by the user shall result in the application of fines in accordance with the law in force.

PART 9 – VACOOK PARTS LIST AND EXPLODED VIEW

Ref.	QTY	Description		
-2-3-4-5- 6-7-8-9	1	Complete Stainless Steel Body and Grid Basket		
26	1	Handle		
27	1	Milled Knob		
25	1	Intermediate Air Fan		
24	1	Water Rotor		
28	1	Spherical Top Junction M6		
29	1	Spherical Junsiction Foot		
11-12	1	Electronic Board		
15	1	Brushless 12VDC Motor		
23	1	Float		
22	1	Resistance 2000W 230V		
22	1	Resistance 1600W 110V		
17	1	Fuse Holder 20A 250V (6,3x32) Faston 6,3		
16	1	Switch		
21	1	Thermoresistance		
18	1	Male Connection M12		
20	1	Power Cable (Type E+F, G, B,)		
10	1	Adhesive Lexan Label		
19	1	Black Cable Gland PG-11		
13	1	Transformer		
14	1	Protruding Filter		

